

Compliance and Safety: Consistent Objectives?



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Outline

- NTSB Basics
- Compliance vs. Safety
- Needed: Model Process



NTSB Basics

- Independent agency, investigate transportation accidents, all modes
- Determine probable cause(s) – but not blame or liability – and make recommendations to prevent recurrences
- ***SINGLE FOCUS IS SAFETY***
- Primary product: Safety recommendations
 - Not a regulator, cannot require anything, but recommendation acceptance rate > 80%



Post-Accident: Different Objectives

- Safety Investigation
 - Determine what caused the accident and how to prevent it from happening again
 - Wrongful intent very rare; almost always inadvertent error
 - If wrongful intent, may not be classified as “accident”
- Compliance Investigation – Administrative or Criminal Enforcement
 - Determine who violated applicable laws and regulations and what their punishment should be
 - If criminal, generally requires wrongful intent



Criminalization

- Systems are getting more complex
- Most accidents involve good people trying to do the right thing under sometimes difficult circumstances
- Human error: Public outcry and political response to *PUNISH!*
- Issue: Best way to stop error that is *inadvertent?*



Undesirable Results

Actual or threatened criminalization:

- Chills willingness of front-line employees to participate in proactive programs to collect and analyze safety data
- Hinders NTSB accident investigations
- Reduces likelihood of investigating or addressing system issues



Non-US Example: Concorde, 2000

– Chain of Events

- Takeoff
- Piece of metal on runway from previous (Continental Airlines) airplane
- Main gear tire shredded after hitting piece of metal
- Fragments from tire hit wing, punctured fuel tank
- Plane caught fire, crashed
- Crash killed all 109 in airplane, 4 on ground
- Involuntary manslaughter charges brought against Continental Airlines, two Continental mechanics



Outcome, 2012

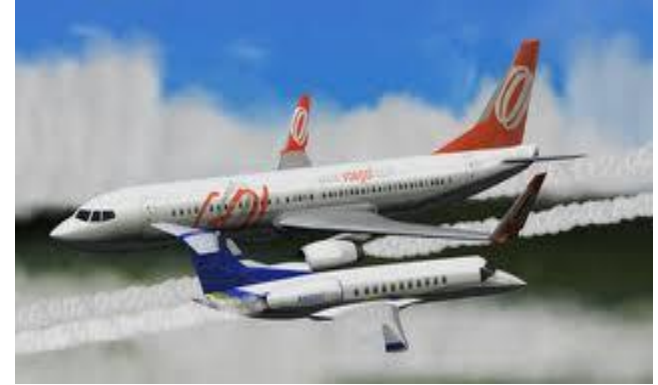
- French appeals court cleared Continental Airlines of criminal charges
- Court also dropped charges against the two Continental mechanics



Non-US Example: GOL, 2007

– Chain of Events

- Embraer eastbound, FL 370, per international convention
- Assigned route turned westbound at navigation waypoint
- Go to even thousand (FL 380 or 360)?
- Pilots tried unsuccessfully to contact controllers, so remained at FL 370
- Transponder on “Standby” (for long time), hence
 - Airplane invisible to ATC
 - Airplane also invisible to TCAS in Boeing
- Airplanes collided, Boeing crashed, fatal to all 154 on board, Embraer landed at nearby airport



Criminal Proceedings

- Two Embraer pilots and four air traffic controllers charged with “exposing an aircraft to danger”
- Embraer pilots ultimately (2011) sentenced to 4 years, 4 months in prison, commuted to community service to be served in the US
- One controller sentenced to a prison term of up to 3 years, 4 months, eligible to do community service in Brazil
- Theory: Pilot’s foot on footrest hit transponder “Standby” button



U.S. Example: ValuJet, 1996

- Airplane crashed after being disabled by cargo compartment fire, killed 110 on board
- Expired oxygen generators were placed in cargo compartment in violation of FAA regulations forbidding transport of hazardous materials in cargo holds
- SabreTech employees indicated on the cargo manifest that the canisters were "empty" instead of being expired oxygen generators
- ValuJet employees thought they were empty oxygen canisters
- Federal and state criminal charges against SabreTech, vice president and two mechanics



Outcome

- Federal Court of Appeals reversed SabreTech guilty verdict in part
 - Federal law could not support conviction for mishandling hazardous materials
 - Government did not prove SabreTech intended to cause harm
- Conviction for improper training upheld
 - Eventual \$500,000 fine, three years' probation, no restitution
- State charges against SabreTech for 110 counts of manslaughter, third-degree murder:
 - Settled by plea of no contest to state charge of mishandling hazardous waste, donation of \$500,000 to an aviation safety group and another charity



U.S Example: Teterboro, 2005

- Airplane nose heavy, could not take off
- Pilot killed, several others injured
- Criminal charges brought against charter company executives



Outcome of Criminal Proceedings

- Charter company's former president, chief operating officer and chief pilot found guilty of endangering the safety of an aircraft, defrauding the FAA, and filing false flight logs; acquitted of 12 other counts
- Former vice president found guilty on the conspiracy count, acquitted on several other counts



Hindrance of NTSB Investigation

- TWA 800 crashed shortly after takeoff from JFK due to explosion of center-fuselage fuel tank, 1996
- All on board perished
- Speculation re shoulder-fired missile
- FBI or NTSB in charge?
 - FBI in charge: No public disclosure of evidence
 - NTSB in charge: Daily public disclosure of evidence
- Difficult to determine validity of missile theory until fuselage pieces recovered from ocean and assembled in hangar
- Ultimate NTSB probable cause: Explosion, due to internal spark of unknown origin, of nearly empty center-fuselage fuel tank heated near flash point



Outcome: FBI/NTSB MOU

- Presumption: Accident caused by inadvertent error, no criminal or intentional wrongdoing
- NTSB will lead investigation
- If investigation uncovers criminal activity, NTSB will ask FBI to lead



Conclusion

- Few would argue against criminalization of intentional wrongdoing
- Overzealous criminalization, however, may adversely affect safety
- Needed: Model Policy, developed collaboratively – but not in the heat of battle – by all who have a “dog in the fight,” regarding how best to address important and sometimes competing interests



Thank You

Questions?



National Transportation Safety Board